
Putting the Participation Puzzle Together

By Maryellen Weimer, PhD

Participation continues to be the most common method faculty use to get students involved and active in their learning. As previous research has documented, faculty use participation strategies with limited success. On average only 25 percent of students in a course participate, and half of the group who make contributions in class do so to the extent that they dominate the discussion.

A host of studies across the past 30 years have isolated factors and conditions that affect participation: things like the size of the class (obviously, the bigger the class the less opportunity for individual participation); faculty authority (that makes students fear faculty criticism); age (older students tend to participate more); gender (some early work describing a “chilly” climate for women in classrooms); student preparedness; and student confidence.

Up to this point, no research has attempted to put these various pieces together, to make individual findings an integrated and coherent whole. Fortunately, the study referenced below begins this needed work. It begins with this premise: “the college classroom, like any other workplace, is a social organization where power is asserted, tasks are assigned and negotiated, and work is accomplished through the interplay of formal and informal social structures. The present study ... relates a variety of otherwise unconnected variables and concepts to the broader theoretical framework of social organizations.” (p. 579). Using

survey data collected from 1,550 undergraduate and graduate students at a medium-sized, urban university, researchers used a path model to assess direct and indirect influences on class participation.

Based on previous research, they used the path model to test 10 hypotheses about participation. Each hypothesis and a brief summary of the findings from this research are listed below. This is a large, complex analysis—more findings and information about them are contained in the article.

- Students’ perception of large class size and lack of opportunity negatively affect self-reported participation both directly and indirectly by increasing fear of peer disapproval and of professor’s criticisms. Contrary to other findings, the path coefficients reported in this study fail to support the hypothesis. Not only was the coefficient insignificant, it pointed in the wrong direction.
- Students’ perception of faculty authority negatively affects self-reported participation both directly and indirectly by increasing fear of peer disapproval and of professors’ criticisms and by decreasing level of confidence. Results showed that perceptions of the professor as an authority of knowledge had “a moderate negative direct effect.” (p. 586). Said another way, “the more students perceive the professor as the authority of knowledge, the

less likely it is that they will participate in class.” (p. 586)

- Students’ self-reported rates of interaction with faculty positively affected reported participation both directly and indirectly by decreasing fear of peer disapproval and of professor’s criticisms and by increasing level of confidence. Faculty-student interaction has the largest direct, indirect, and total effects on self-reported participation. “We suggest ... that faculty members not only indirectly shape classroom dynamics ... but also directly influence students’ behaviors in class through the relationship they develop with their students during out-of-class activities.” (p. 591)
- Students’ self-reported fear of peer disapproval negatively affects reported participation both directly and indirectly by decreasing level of confidence. Fear of peer disapproval was the third largest factor affecting participation. And this fear of peer response also had the largest negative effect on student confidence.
- Students’ self-reported fear of professors’ criticisms negatively affects reported participation directly and indirectly by decreasing level of confidence. This fear did not exert important effects on students’ reports of their participation.
- Student’s self-reported rates of para-participation (including nonverbal feedback and informal discussions with the instructor before or after class) have a positive, direct effect on reported class participation. This hypothesis was confirmed: “Para-participation increases the likelihood of more conventional participation in the classroom.” (p. 588)

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- Students' age positively affects self-reported class participation, both directly and indirectly via confidence and diminished fear of peer disapproval and of professor's criticisms. These results confirmed earlier findings: "As age increases, so does students' self-reported participation." (p. 588). To illustrate, traditional age students, those 18 to 24 were 2.5 times more likely to report that they never or seldom participated in class. Non-traditional students were three times more likely to report that they always participated.
- Male students will report greater levels of class participation, will report higher levels of confidence, and are less likely to develop feelings of fear of peer disapproval

and professor's criticism than female students are. "Our results indicate that gender has little or no effect on self-reported participation rates." (p. 590)

- Students' reported lack of preparation has negative, indirect effects on participation by increasing the fear of peer disapproval and of professors' criticisms and by decreasing confidence. The results partially supported this hypothesis. The direct effect is weak and unexpectedly in the negative direction, meaning being prepared decreases participation. But the indirect effects were positive. Lack of preparation did influence participation by effecting confidence and fears. (p.590)
- Students' confidence positively affects self-reported participation rate. This hypothesis was confirmed.

This research article is long and the methodology sophisticated, but the generation of the hypotheses and discussion of results are clear and accessible. In addition to being an impressive example of the scholarship that integrates, the article is exceptionally well referenced. It contains an amazingly more complete list of research and theory on and related to participation.

Reference: Weaver, R. R., and Qi, Jiang (2005). Classroom organization and participation: College students' perceptions. *Journal of Higher Education*, 76 (5), 570-601.

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To Call On or Not to Call On: That Continues to Be the Question

By Maryellen Weimer, PhD

Ask a question and no one volunteers: should you call on a student? You have a quiet but capable student who rarely or never participates: should you call on that student?

Views on the value of cold calling, as it's referred to in the literature, are mixed. Faculty who do call on a student whose hand is not raised do so for a variety of reasons. Not knowing when they might be called on keeps students more attentive and better focused on the content. Being called on and successfully responding

may help develop students' confidence and motivate them to participate more. The quality of discussion improves when more people participate, and because research has documented what most of us have experienced—that only a few students regularly participate—calling on students adds to the conversation.

Some of those who don't call on students unless they volunteer do so because they want to encourage students to start taking responsibility for the quality of discussions that occur in class. More often, they

hesitate because they know the process provokes considerable anxiety. Often the process diminishes confidence and the motivation to talk more in class.

In an interesting study of several aspects of the cold-calling approach, researchers solicited from faculty who do call on students a variety of strategies they use to make cold calling less "icy." Here's a brief summary of what they suggest:

- Establish the expectation of participation—Warn students that you

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